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OCCUPATIONAL EDUCATION AND TRAINING FOR TOMORROW'S WORLD OF WORK. NUMBER 4, COMMUNITY AND JUNIOR COLLEGES.

BY- HALL, GEORGE L.
OHIO STATE UNIV., COLUMBUS

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IN THE NORTH CENTRAL REGION ALL STATES EXCEPT SOUTH DAKOTA AND WISCONSIN HAVE PUBLICLY SUPPORTED COMMUNITY AND JUNIOR COLLEGES. THESE COLLEGES ARE INSTITUTIONS WHICH OFFER LESS THAN FOUR YEARS OF POST-HIGH SCHOOL EDUCATION. JUNIOR COLLEGES GENERALLY OFFER ONLY LIBERAL ARTS COURSES WHILE COMMUNITY COLLEGES ALSO PROVIDE VOCATIONAL, TECHNICAL, AND COLLEGE TRANSFER COURSES. OVER 1,000,000 STUDENTS ARE ENROLLED IN 730 OF THESE COLLEGES IN THE UNITED STATES. JOB TRAINING IN COMMUNITY COLLEGES PROVIDES FOR THE NEEDS OF WORKERS IN THREE WAYS -- (1) ENTRANCE TO LABOR, (2) UPGRADING ADVANCEMENT, AND (3) RETRAINING FOR NEW REQUIREMENTS. EDUCATION BEYOND THE HIGH SCHOOL PAYS OFF IN HIGHER EARNINGS DURING EMPLOYMENT AND WORKERS WITH SOME COLLEGE SUFFER LITTLE FROM UNEMPLOYMENT. THE CURRICULA ARE VARIED AND DIVERSE TO MEET THE NEEDS OF INDIVIDUAL COMMUNITIES AS EVIDENCED BY SUCH COLLEGES IN CALIFORNIA, COLORADO, AND NORTH DAKOTA. FUNDS COME FROM FEDERAL, STATE, LOCAL, OR TUITION SOURCES. NATIONALLY, ANNUAL OPERATING COSTS AVERAGED $700 PER STUDENT IN 1965-66. COMMUNITIES CONSIDERING A COMMUNITY COLLEGE CAN ASSUME THAT -- (1) IT SHOULD HAVE AT LEAST 400 STUDENTS, (2) GRADES 9 TO 12 SHOULD HAVE A MINIMUM ENROLLMENT OF 2,000 STUDENTS TO ASSURE A COLLEGE ENROLLMENT OF 400 IN 3 YEARS, (3) THE DISTRICT SHOULD BE LARGE ENOUGH TO ESTABLISH A BROAD TAX BASE, AND (4) COMMUTING DISTANCE SHOULD NOT EXCEED 50 MILES OR HOUSING BECOMES A PROBLEM. OTHER ALTERNATIVES FOR VOCATIONAL TRAINING ARE DISCUSSED IN VT 001 353 - VT 001 355, VT 001 357 AND VT 001 358. (EM)

VT01356

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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OCCUPATIONAL EDUCATION AND TRAINING FOR TOMORROW'S WORLD OF WORK

NO. 4 COMMUNITY AND JUNIOR COLLEGES

A Series of Publications by the North Central Extension Public Affairs Subcommittee on Providing Occupational Education and Training Opportunities

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1965

BY GEORGE L. HALL

Director, Midwest Community College Leadership Program, University of Michigan, Michigan State University, and Wayne State University

TWENTY-SIX MILLION NEW, YOUNG WORKERS will enter the labor force from 1960 to 1970. In 1965 alone, 3,000,000 new workers are looking for jobs. In addition to new workers, many of those who are employed change jobs and must be retrained for new employment. Technical know-how and automated processes are placing a premium upon skills.

The National Science Foundation estimates industry's needs of technicians alone as 1,262,000 by 1970. This is double the number of technicians who were employed in 1960! Add the need of government and others in such fields as agriculture and health and the technician training job seems insurmountable.

Just as the horse was replaced by the tractor, the man without skills is being replaced by the machine and man's role now is to direct the machine to do his bidding. The young man or woman, fresh from high school, with a good general background but without salable skills, faces unemployment.

This publication is devoted to a discussion of the community and junior colleges — what they are and how they may be used to train for employment.

In the North Central region all but South Dakota and Wisconsin have publicly-supported community and junior colleges. South Dakota seeks to meet this level of need through featuring State Teacher Colleges, a College of Agriculture and Mechanic Arts and a state School of Mines and Technology. Wisconsin has established a series of two-year Teacher Colleges and a number of technical and vocational schools. In neither state is there a type of school performing the total functions of a community college, yet the states will be involved in training for the world of work.

Indiana relies primarily upon university branches and centers to make higher education available as the state has but one public community college.

Community and Junior College Defined

Let's take a closer look at the community and junior colleges which appear to have the experience and ability in training for occupations. Community and junior colleges may be defined as educational institutions offering less than four years of post-high school education. Some educators use the terms community college and junior college synonymously, that is, to describe the same kind of school. But there is a difference and in this publication the junior colleges are described as two-year colleges having narrow purposes, generally offering only the liberal arts courses.

Community colleges, on the other hand, are comprehensive institutions providing for the educational needs of all youth and adults including vocational and technical education, general education, and college transfer courses.

Many junior colleges are broadening their curricula to include occupational training and are thus becoming comprehensive community colleges.

There are 730 community and junior colleges in the U. S. today enrolling over 1,000,000 students. Two million students will be enrolled in more than 1,000 community and junior colleges by 1975. Today, one of four students starting college does so at a community or junior college. These colleges are the fastest growing post-high school institution in America. One of the chief reasons for this growth is the fact that the doors of the community colleges are open to all whether they seek to become physician, teacher, butcher, baker or candlestick maker.

Some Distinctive Characteristics

How do community and junior colleges differ from technical institutes and vocational schools? — The community and junior colleges differ from technical and vocational schools in that technical institutes have strict admission requirements, as the two-year technician course is rigorous. Most technical programs are based upon mathematics and the sciences. The technical institute trains for employment and does not offer general education or college transfer work. Vocational schools generally have more liberal admission requirements as their courses are less rigorous and their interest is preparation for employment. Like the technical institute they do not offer general education or college transfer courses.

University centers differ from community and junior colleges in that the university centers have admission requirments like their parent university and most are more concerned with offering academic courses than they are with

Publications in this series are subtitled: No. 1 — Square Pegs and Round Holes; No. 2 — High Schools; No. 3 — Area Vocational Schools; No. 4 — Community and Junior Colleges; No. 5 — University Programs; and No. 6 — Business, Labor, and Other Private Programs.

providing occupational curricula. The centers, lacking their own physical facilities in the local community, generally use high school classrooms — a practice which restricts the offering to evening classes.

Training by business and industry is often effective but tends to train for specific business and industrial tasks and is narrow in character. Further, training opportunities in business are not readily available in all communities and those who attend are selected by the firm offering the job training.

National Panel Urges Community Colleges

A national panel of prominent citizens representing business, industry and education, meeting in Washington, D.C. in December 1964, announced:

> *"The community-centered junior college offers unparalleled promise for expanding educational opportunity through programs embracing job training. Occupational education initiated in junior colleges should be reinforced and new programs developed where necessary."*

The community college is a likely institution to offer occupational training with its flexible admissions policies, stress on counseling and guidance, accessibility in terms of costs and location, and its willingness to depart from traditional approaches to college education.

Job training as offered in community colleges provides for the needs of workers in three ways: (1) entrance to labor, (2) upgrading for advancement and (3) retraining for new job requirements.

The community colleges are in a position to play a major role in job training as the educational requirements for the various occupations increase. The chart on page 3 entitled "Occupational Trends and Educational Requirements" reveals that two-thirds of the nation's jobs in 1970 will require more than the traditional high school education. One-fifth of the jobs will be filled with college graduates. One-half of the nation's workers must have formal education or training beyond the high school — the kind of education offered today in community and junior colleges, technical institutes, university extension centers and in business colleges.

The community college has the advantage of providing general education in addition to the occupational skills. This flexibility is an advantage to the occupational student, who then better understands the theoretical background and may shift more readily with changing technology.

Education beyond the high school pays off in higher earnings during employment and workers with "some" college suffer but little unemployment, while more than 8 percent of workers with less than high school graduation are unemployed. See Figure 1.

Although we expect the community college to play a larger role in occupational education, the high schools will still be called upon for expanded job training, just as will the vocational schools and technical institutes, university extension centers and business and industry.

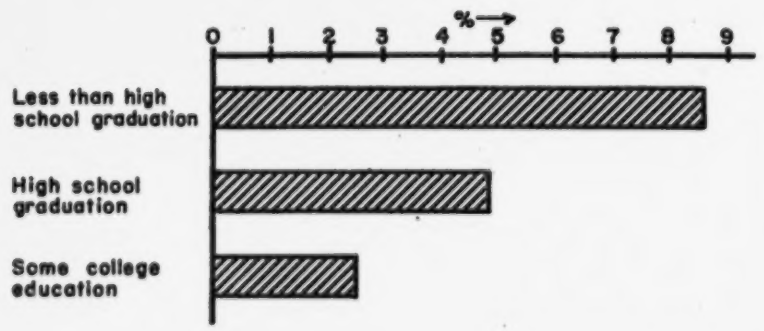


Fig. 1 — Unemployment rates (percent) by amount of education (1959). The less schooling, the higher the unemployment.

Which Occupations Require Education Beyond the High School?

If you are wondering whether or not certain occupational curricula should be offered by the high school or by one of the post-high school programs, you can use the following criteria as a guide.

The course is post-high school if:

1. The maturity demanded by employers for employment is beyond that of average high school graduation;
2. The prestige of a post-high school institution is needed to attract the student or to sell the program to business and industry;
3. The occupational curriculum requires high school graduation, including the completion of specified courses, as a minimum foundation for undertaking the occupational program;
4. The cost of equipment and instructional personnel is beyond the fiscal ability of the high school district;
5. State or area programs are required to meet the needs of students from widely scattered communities whose small high schools have little or no provision for occupational education;
6. The occupational curriculum is defined as technical, professional or semi-professional;
7. It is for people who went to work after high school graduation with no specific occupational training, and who now want to enter full-time training to prepare for better jobs.

Serve Many Purposes

California's tuition-free community and junior colleges lead the nation in numbers of colleges, enrollment, and variety of occupational curricula offered. Listed below* are the various occupational curricula offered by the California two-year colleges. The figures refer to the number of community colleges offering the particular curriculum.

Agriculture, horticulture and forestry — agribusiness, 11; animal husbandry, 10; floriculture and ornamental, 10; general agriculture, 10; others, 32.

Applied and graphic arts — advertising and commercial art, 25; journalism, 10; photography, 14; publishing and printing, 12; others, 28.

Business and commerce — accounting and bookkeeping, 51; general business management, 31; general clerical, 50; real estate, 20; retail merchandising, 36; secretarial and stenographic, 60; others, 86.

Trade and technical — automotive and diesel, 38; building construction, 24; civil and construction, 28; drafting, 40; electronics technology, 51; welding and oxygen cutting, 19; others, 143.

Health services — dental assisting, 20; licensed vocational nursing, 30; medical assisting, 15; registered professional nursing, 18; others, 14.

Miscellaneous occupations — cosmetology, 15; law enforcement, 36; others, 25.

* Taken from the Directory of Occupation-centered Curricula in California Junior Colleges and Schools for Adults. Compiled by J. M. Jacobsen. Sacramento: California State Department of Education, 1962, cited on p. 179, *Vocational Education* by the National Society of Education, 64th Yearbook of the Society, 1965.

Much is made of the fact that the community and junior colleges under local control reflect the needs of the community. For example, Modesto College, located in the California wine region, offers work in viticulture and enology, which pertains to the raising of wine grapes. At Trinidad Community College in Colorado, where deer and antelope hunting is big business, the local community college trains gunsmiths. Some community colleges, however, offer occupational training in highly specialized curricula which attract students from the nation at large and from foreign countries. The Fashion Institute of Technology of New York City is an example. FIT, as it is called, is a two-year college training specialized workers for the garment industry. People come from all parts of the world to study at this unique college.

Financing

Community and junior colleges vary in terms of offerings and they vary in terms of financial arrangements and costs. The federal government, the state, local community and the student may share the financial burden. The federal and state governments appropriate from general funds, the community levies special taxes, and the student pays tuition. Finances are frequently cited as a major deterrent to college and, therefore, community college tuition should be kept low; and the student should not be looked upon as a full partner in sharing the financial burden.

The Michigan Example

The Michigan public community and junior colleges reported annual per student operating costs of $520 for 1962-63. The nation-wide figure for 1965-66 is closer to $700 per student for operating costs. Average tuition in Michigan community and junior colleges is $180 per year. New college costs may be kept to a minimum through the device of sharing high school facilities after 4:00 p.m. This does permit a community starting a college to get it into operation in a hurry, and with little financial outlay.

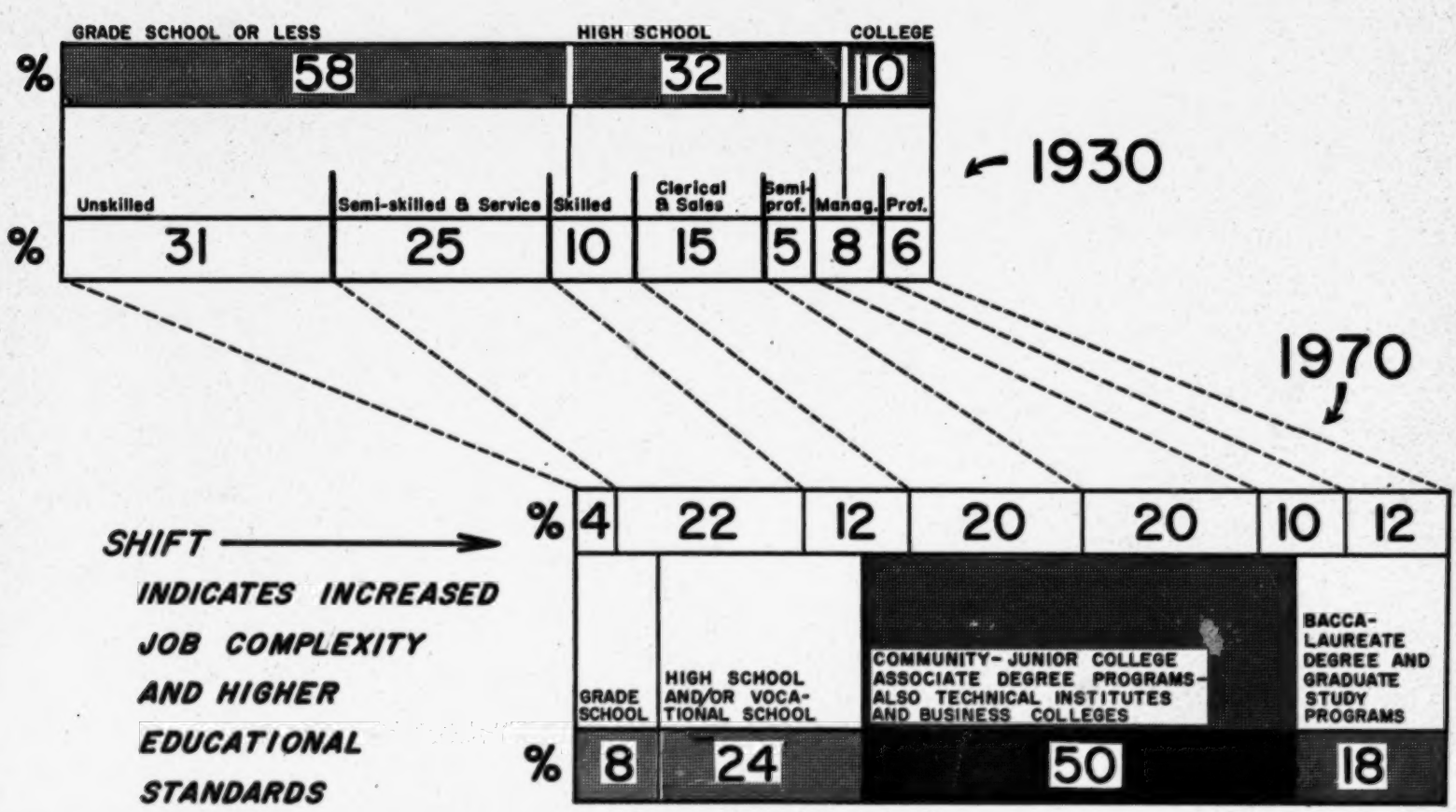
It has already been mentioned that community colleges vary a great deal and that no two offer identical courses or curricula. This fact is well illustrated by California's community and junior colleges. In general the California two-year colleges, though dissimilar, are more comprehensive and more advanced than colleges in other parts of the country in offering occupational education. However, there are outstanding examples of comprehensive community colleges in the North Central region, such as North Dakota State School of Science at Wahpeton and the new St. Louis-St. Louis County Junior College District in Missouri. These colleges offer occupational curricula such as engineering technology; air line stewardess; advertising design and commercial art; agricultural technology; hotel and restaurant operation; law enforcement; medical secretary; registered nursing; practical nursing; executive secretarial.

Should You Have A Community College?

Suppose you don't have one of these 2-year colleges in your area and you feel that one would be beneficial, how many students are needed for a community college?

A community college should have at least 400 students to offer the breadth of curricula needed to meet the needs

Changes in U.S. Occupational Trends and Educational Levels — 1930 to 1970



Source: Harris, Norman. Technical Education in the Junior Colleges — New Programs for New Jobs. (p. 27) American Association of Junior Colleges, Washington, D. C.

of the high school graduates. There needs to be a minimum enrollment of about 2,000 students in grades 9 to 12 to assure a college enrollment of 400 within three years. The trend today, which is highly recommended, is for large geographical community college districts which allow a broad tax base and a wide service area from which to draw students.

"And how far may students commute?" you may ask. The community college should be large enough to offer a comprehensive program, but students should not be required to drive more than one hour to attend the community college. This means that 50 miles is about the outside driving distance. Some community colleges in sparsely settled areas construct dormitories so that they may attract enough students to offer a broad program. Northwestern Michigan College at Traverse City and the North Dakota State School of Science at Wahpeton are examples. In other instances people open their homes to out-of-town students, often entering into three-way contract for room and board, with homeowner, student and college each participating.

You may have a community or junior college in your community already, or within commuting distance of your home. A list of public, co-educational, community and junior colleges in the North Central states and their location is shown in the adjacent column. There are 730 community and junior colleges in the United States and they are growing at the rate of 30 new colleges per year.

If there is a college serving your area you should check to see what occupational training is offered. Perhaps you can assist the college in identifying additional educational needs yet unmet.

Study Community's Resources and Needs

Whether or not your community should seek a two-year college should depend upon a study of community resources and needs. Such a study is generally accomplished by a group of interested citizens who engage an educational consultant to direct their investigation. A citizens' study group is generally interested in enrollment prospects; amount and nature of the educational needs; adequacy of financial resources of community for support; business and industry employment opportunities; natural resources of the area that could be developed; characteristics of the population; existing educational organizations and their ability to assume greater responsibility; and the community's interest, willingness and desire to support post-high school education.

It may be that in your community, in your state, other types of educational organizations are better prepared to do the training job. One must not overlook the possibility that a combination of approaches may provide the most efficient and effective program.

The thing society may not do is to ignore the employment needs of young people and adults. THERE IS MUCH TO DO AND SO LITTLE TIME!

PUBLIC COMMUNITY AND JUNIOR COLLEGES IN THE NORTH CENTRAL AREA

(The name of the college and the name of the city where located are identical unless otherwise indicated.)

ILLINOIS

Arlington Heights JC; Belleville JC; Black Hawk JC, Moline; Bloom Township CC, Chicago Heights; Canton CC; Centralia JC; Chicago City JC (8 branches), Chicago; Danville JC; Elgin CC; Freeport CC; Joliet JC.

La Salle-Peru-Oglesby JC, La Salle; Lyons Township JC, La Grange; Morton JC, Cicero; Mt. Vernon CC; Olney CC; Rock College, Rockford; Southeastern Ill. CC, Harrisburg; Trenton College, Maywood; Thornton JC, Harvey; Wabash Valley CC, Mt. Carmel; Sterling CC.

INDIANA

Vincennes Univ. JC, Vincennes.

IOWA

Boone JC; Burlington CC; Centerville CC; Clarinda CC; Clinton JC; Creston CC; Eagle Grove JC; Ellsborth JC, Iowa Falls; Emmetsburg CC; Estherville JC; Fort Dodge CC; Keokuk CC; Marshalltown CC; Mason City JC; Muscatine CC; Webster City JC.

KANSAS

Arkansas City JC, Arkansas City; Butler County JC, El Dorado; Chanute JC; Coffeyville JC; Dodge City JC; Fort Scott JC; Garden City JC; Highland JC; Hutchinson JC; Independence CC; Iola JC; Kansas City JC; Parsons JC; Pratt County JC, Pratt.

MICHIGAN

Alpena CC; Bay de Noc CC, Escanaba; Cass County CC, Dowagiac; Delta JC, Univ. Ctr.; Flint JC; Gogebic CC; Ironwood; Grand Rapids JC; Montcalm CC, Stanton.

Henry Ford CC, Dearborn; Highland Park JC; Jackson JC; Kellogg CC, Battle Creek; Lake Mich. CC, Benton Harbor; Lansing CC.

Macomb County CC, Warren; Monroe County CC, Monroe; Muskegon County CC, Muskegon; North Central Mich. CC, Petoskey; Northwestern Mich. CC, Traverse City; Oakland County CC, Auburn Hgts.; Port Huron JC; Schoolcraft JC, Livonia; Washtenaw County CC, Ann Arbor.

MINNESOTA

Austin JC; Brainerd JC; Ely JC; Eveleth JC; Fergus Falls JC; Hibbing JC; Itasca JC at Coleraine; Rochester JC; Metropolitan JC, Minneapolis and Circle Pines; Thief River Falls JC; Virginia JC; Willmar CC; Worthington JC.

MISSOURI

Jasper County JC, Joplin; Jefferson County JC, Hillsboro; JC of Flat River; JC of Kansas City; Moberly JC; St. Joseph JC; St. Louis JC Dist.; Trenton JC; Crowder JC, Neosho.

NEBRASKA

Fairbury JC; McCook JC; Norfolk JC; Scottsbluff JC.

NORTH DAKOTA

Bismarck JC, Bismarck; Lake Region JC, Devils Lake; N. Dak. School of Forestry, Bottineau; N. Dak. State School of Science, Wahpeton.

OHIO

Cuyahoga CC, Cleveland; Dayton CC; Lorain County CC, Lorain; Youngstown CC.

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